ASH FIRE

BURNED AREA REHABILITATION ACCOMPLISHMENT REPORT
FISCAL YEAR 2008

U. S. FISH AND WILDLIFE SERVICE
ASH MEADOWS NATIONAL WILDLIFE REFUGE

Prepared by: Heather Hundt – Fish and Wildlife Biologist
March 11, 2008

ASH FIRE
FY 2008 BURNED AREA REHABILITATION
ACCOMPLISHMENT REPORT

TABLE OF CONTENTS

Many of the Arizona ash trees damaged by the fire have re-sprouted and are nearly 15 ft. tall after only 3 years of growth.

ASH FIRE
FY 2008 BURNED AREA REHABILITATION
ACCOMPLISHMENT REPORT

PART A - FIRE LOCATION AND BACKGROUND INFORMATION

Fire Name	ASH	**Jurisdiction**	**Acres**
Fire Number	NV-AMR-BK6Y	U. S. Fish & Wildlife Service	65
Agency Unit	U. S. Fish and Wildlife Service Ash Meadows National Wildlife Refuge	Bureau of Land Management	25
Region	Region 8	Private	0
State	Nevada		
County(s)	Nye		
Ignition Date/Cause	March 9, 2005 Human Caused		
Zone	Western Great Basin		
Date Fully Contained	March 10, 2005		
Date Controlled	March 11, 2005	**Total Acres**	**90**

Fish and Wildlife Service
ASH FIRE
FY 2008 BURNED AREA REHABILITATION
PART B - ACCOMPLISHMENT REPORT

Date Prepared:	***BAER Plan Name:***	***Location (Region, Agency/Tribe):***
March 11, 2008	Ash Fire	California/Nevada Operations Fish and Wildlife Service, Ash Meadows NWR

Prepared by:	***Project Implementation Leader:***
Heather Hundt (USFWS)	Heather Hundt (USFWS)

Line Item:	***Specification Title:***
R-1, Invasive Species Control	Invasive Species Control

Percentage of Spec. Completed:	***Total funds Expended:***	***Type of Funding Used:***
100%	$14,772	BAR

Narrative: Noxious weed treatments, which began during the emergency stabilization phase, were continued into fiscal year 2008 with funds provided under the Burned Area Rehabilitation Program. In December 2007, two research associates from the Nevada Conservation Corps were hired to continue weed treatments within the Ash fire perimeter. The contracting firm SWEAT performed follow-up cut-stump and mechanical extraction treatment of salt cedar in the area. Between the two contractors, a total of 14-acres were treated for invasive weed species.

Date Completed:
3/11/2008

Fish and Wildlife Service
ASH FIRE
FY 2008 BURNED AREA REHABILITATION
ACCOMPLISHMENT REPORT

Date Prepared:	***BAER Plan Name:***	***Location (Region, Agency/Tribe):***
March 11, 2008	Ash Fire	California/Nevada Operations Fish and Wildlife Service, Ash Meadows NWR

Prepared by:	***Project Implementation Leader:***
Heather Hundt (USFWS)	Heather Hundt (USFWS)

Line Item:	***Specification Title:***
R-2, Native Planting	Native Planting Clearing

Percentage of Spec. Completed:	***Total funds Expended:***	***Type of Funding Used:***
100%	$23,890	BAR

Narrative: Native grasses/forbs, shrubs and trees were planted within the perimeter of the Ash Fire site during October 2007. The work was performed under contract with the Nevada Conservation Corps (NCC). A total of 10-acres were planted and seeded. Plants were propagated from native seeds and cuttings collected from the Refuge during 2006/2007 and grown out by the Nevada Division of Forestry and College of Southern Nevada in Las Vegas, NV. As in past years, extra seed not used for plant propagation was spread in disturbed areas to enhance natural recovery of native plants. The bulk of the species planted included Arizona ash, coyote willow, honey mesquite, alkali sacaton, and salt grass.

Drip irrigation, which was necessary for initial plant propagation was funded through the Southern Nevada Public Lands Management Act, and no Burned Area Restoration funds were utilized for this purpose. The continuation of vegetation rehabilitation was necessary in order to: Promote the recovery of native vegetation, protect biological diversity of plant communities, protect habitats for threatened and endangered species, minimize erosion, and prevent the return of invasive plant species which create fire prone conditions.

Date Completed:
3/11/2008

Fish and Wildlife Service
ASH FIRE
FY 2008 BURNED AREA REHABILITATION
ACCOMPLISHMENT REPORT

Date Prepared:	***BAER Plan Name:***	***Location (Region, Agency/Tribe):***
March 11, 2008	Ash Fire	California/Nevada Operations Fish and Wildlife Service, Ash Meadows NWR

Prepared by:	***Project Implementation Leader:***
Heather Hundt (USFWS)	Heather Hundt (USFWS)

Line Item:	***Specification Title:***
R-3, Vegetation Monitoring	Vegetation Monitoring

Percentage of Spec. Completed:	***Total funds Expended:***	***Type of Funding Used:***
100%	$8,438	BAR

Narrative: Refuge staff and contractors from the Nevada Conservation Corps monitored 5-acres of invasive weeds and native plantings within the perimeter of the Ash Fire. The progress and results of these efforts were monitored once in each of the four seasons. Mechanical treatments of salt cedar treatments were 73% successful. Initial treatments and re-treatments of five-hook bassia were deemed to be 79% successful. Southern cattail treatments were found to be 80% successful, and treatments of common reed were found to be 71% successful.

Date Completed:
3/11/2008

Fish and Wildlife Service
ASH FIRE
FY 2008 BURNED AREA REHABILITATION
ACCOMPLISHMENT REPORT

Date Prepared:	***BAER Plan Name:***	***Location (Region, Agency/Tribe):***
March 11, 2008	Ash Fire	California/Nevada Operations Fish and Wildlife Service, Ash Meadows NWR

Prepared by:	***Project Implementation Leader:***
Heather Hundt (USFWS)	Heather Hundt (USFWS)

Line Item:	***Specification Title:***
R-4, Implementation Leader	Implementation Leader

Percentage of Spec. Completed:	***Total funds Expended:***	***Type of Funding Used:***
100%	$10,168	BAR

Narrative: From October 2007 through January 2008 the Implementation Leader coordinated all aspects of the rehabilitation plan including administering contracts, documentation of treatments installed, and ensuring the completion of all approved treatments. Along with development and implementation of contracts the Implementation Leader also coordinated treatments with other agencies and adjacent private landowners, as well as completing the 2008 accomplishment report.

The implementation leader functioned as the Contracting Officer Representative (COR) for all contracts that were in place for the Ash Fire BAR Plan. All work was coordinated to ensure completion by specific deadline dates and that contract milestones were completed.

Date Completed:
2/01/2008

Fish and Wildlife Service
ASH FIRE
FY 2008 BURNED AREA REHABILITATION
ACCOMPLISHMENT REPORT

PART C – MONITORING REPORT

SPECIFICATION TITLE:	**Vegetation Monitoring**	**JURISDICTION**	**FWS-ASME**
PART E LINE ITEM:	**Vegetation Monitoring**	**FISCAL YEAR:**	**2008**
SITE ID	**N/A**	**SPECIFICATION TYPE:**	**BAR**

I. TREATMENT EFFECTIVENESS REPORT

A. Objectives: Continue to monitor non-native invasive species treatment effectiveness and native planting recovery within the burned area to determine if management objectives are being met, and to identify any future planting or noxious weed control needs. Plants to be monitored include salt cedar, five-hook bassia, southern cattail and common reed, as well as all native planting treatments.
Continue monitoring for new occurrences of undesirable plant species (noxious and exotic), within the burned area. Monitoring will occur in uninfested areas having a high potential for weed invasion.

Continue monitoring for establishment of planted native grasses and other plant materials the first year following treatment to determine if revegetation efforts are meeting management goals.

B. Prescribed Treatment:

1. Control non-native invasive weeds within the burn area utilizing a variety of control techniques including herbicide and mechanical treatments. Timing of herbicide application is adjusted to ensure treatment of each species is conducted in the proper phenological stage to ensure the protection and recovery of native, endemic and Federally listed species.
2. Follow-up control in the fall, spring and subsequent years on treated sites as appropriate.
3. Locate, map, and document (using photography, topographic maps, and Global Positioning System--GPS—technology) new or changed weed occurrences within burned area. Provide GPS shape files to contractors for use in GPS guided applications. Document percent control or kill of noxious weeds.
4. Initiate Agency approved control measures on weeds where monitoring demonstrates the establishment or expansion of known weed populations.
5. Monitor water quality in aquatic areas adjacent to herbicide treatments areas using passive samplers to detect herbicides.
6. Native seeds and cuttings were collected to propagate plants at private nurseries to produce tublings for planting.
7. Hand-plant native grasses, shrubs and trees by contract crews to re-establish native vegetation within moderate to high burn severity areas.

C. Treatment Modifications: There have been no modifications to the native planting or invasive species treatments during FY 2007.

D. Treatment Effectiveness Monitoring:

1. Permanent transects for each treatment were established prior to treatments to continue short-term monitoring on known noxious weed occurrences, and in areas of potential spread within the burned area, to determine spread of noxious and invasive plant species. The monitoring protocol was developed by USGS-BRD, using a modified version of the National Park Service FMA protocol.

2. For native planting areas, permanent transects and photo points were established to monitor survival rates of planted species and to adjust planting methods or timing if monitoring indicates a deficiency in methods.

E. Observations: Effectiveness monitoring of weed treatments occurred once during each of the two remaining seasons (fall and winter). Mechanical treatments of salt cedar treatments were 73% successful. Re-treatments of five-hook bassia were deemed to be 79% successful. Southern cattail treatments were found to be 80% successful, and treatments of common reed were 71% successful.

Phase 3 of the native plantings occurred in October of 2007. As of mid-February 2008, approximately 83% of the grass and shrub plantings appeared to be successful and at least 52% of the trees were doing well. This was a substantial improvement over 2006 plantings. The improvements were believed to have resulted from plantings having occurred in spring and fall rather that summer, giving the newly installed plants time to adjust before the height of summer, and because of the installation of drip irrigation rather than plants having to rely on existing groundwater. As mentioned previously the drip irrigation was funded through funds obtained through the Southern Nevada Public Lands Management Act for rehabilitation of previously weed infested areas. No BAR funds were used for the drip irrigation.

ASH FIRE
2008 BURNED AREA REHABILITATION
ACCOMPLISHMENT REPORT

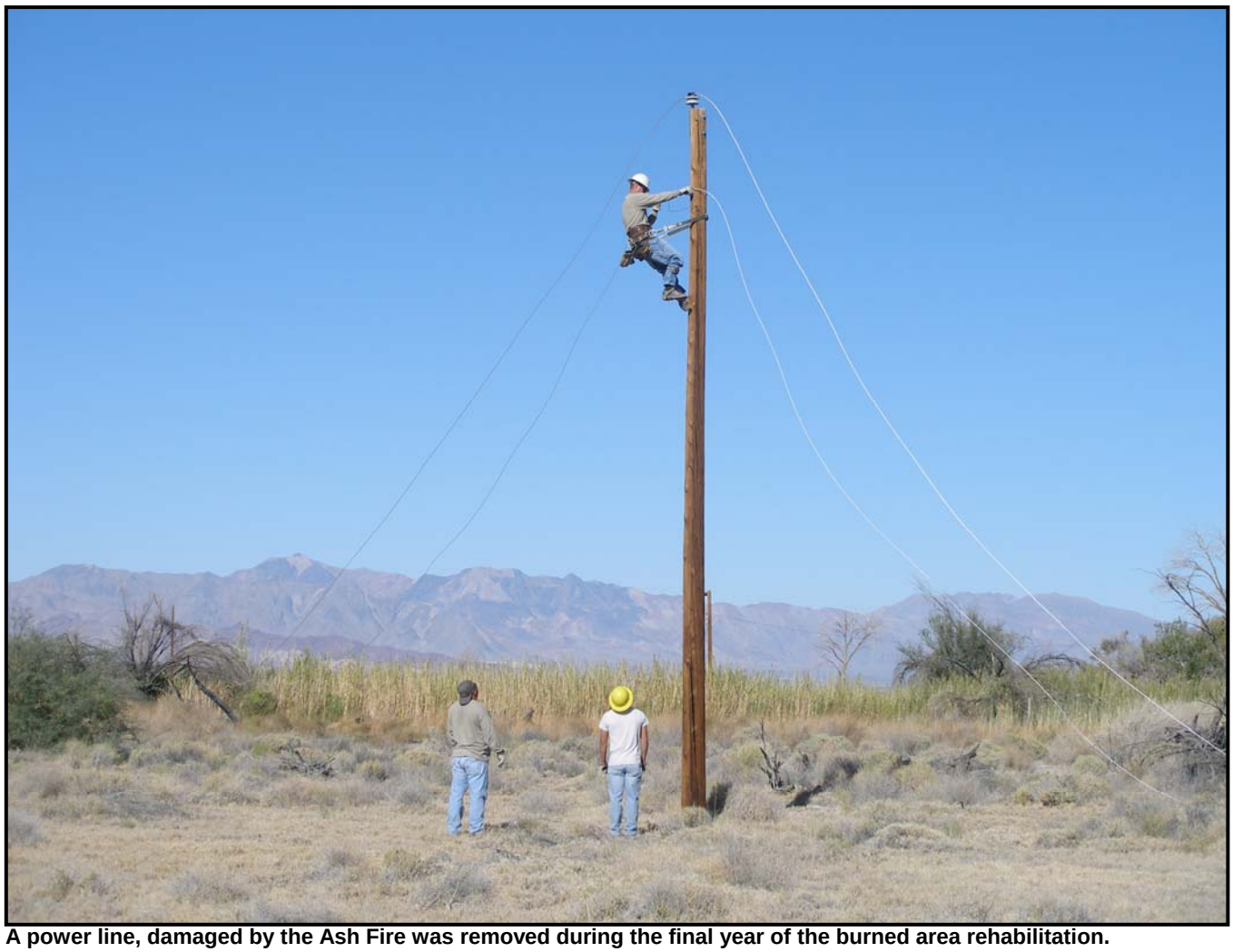
PART D – FINANCIAL SUMMARY

Treatment Specification	Unit	Unit Cost	# of Units	Approved Funds	Total Funds Expended
R-1 Invasive Species Control	Acres	$1,055.14	14	$13,130	$14,772
R-2 Native Planting	Acres	$2,389.00	10	$23,890	$23,890
R-3 Vegetation Monitoring	Survey	$1,687.60	5	$8,438	$8,438
R-4 Implementation Leader	Month	$5,084.00	2	$11,810	$10,168
TOTAL	N/A	N/A	N/A	$57,268	$57,268

ASH FIRE
2008 BURNED AREA REHABILITATION
ACCOMPLISHMENT REPORT

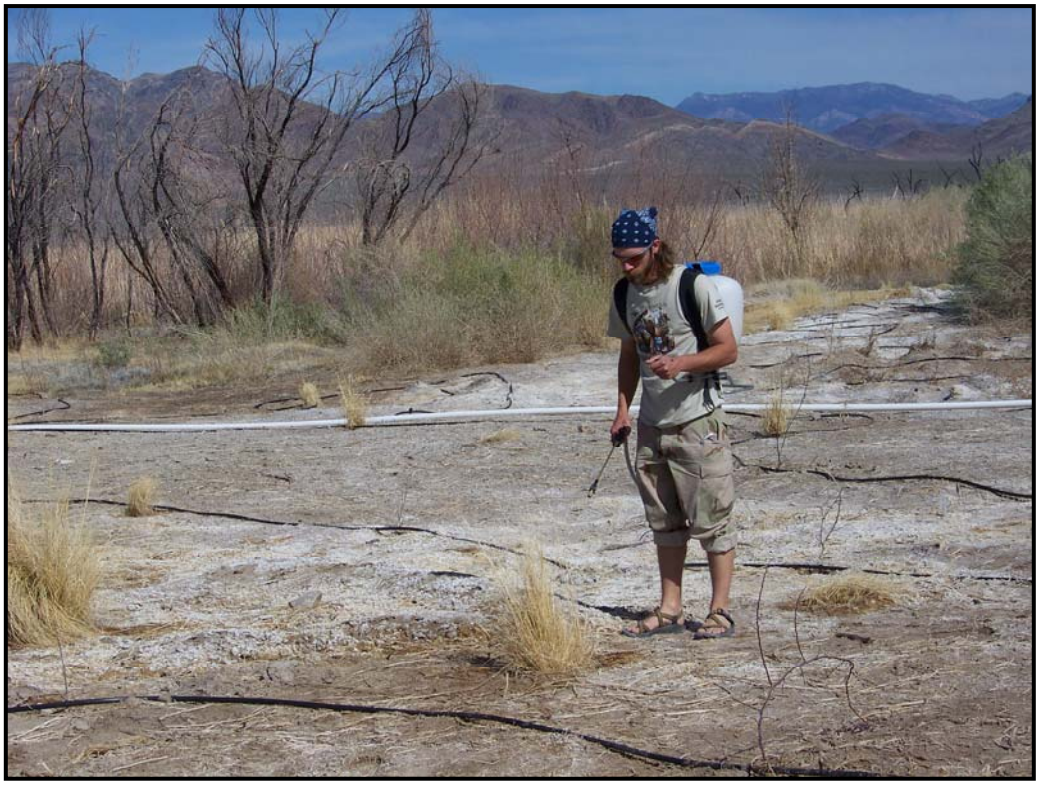
PART E - PHOTO DOCUMENTATION

- Invasive Species Control
- Native Plantings
- Vegetation Monitoring

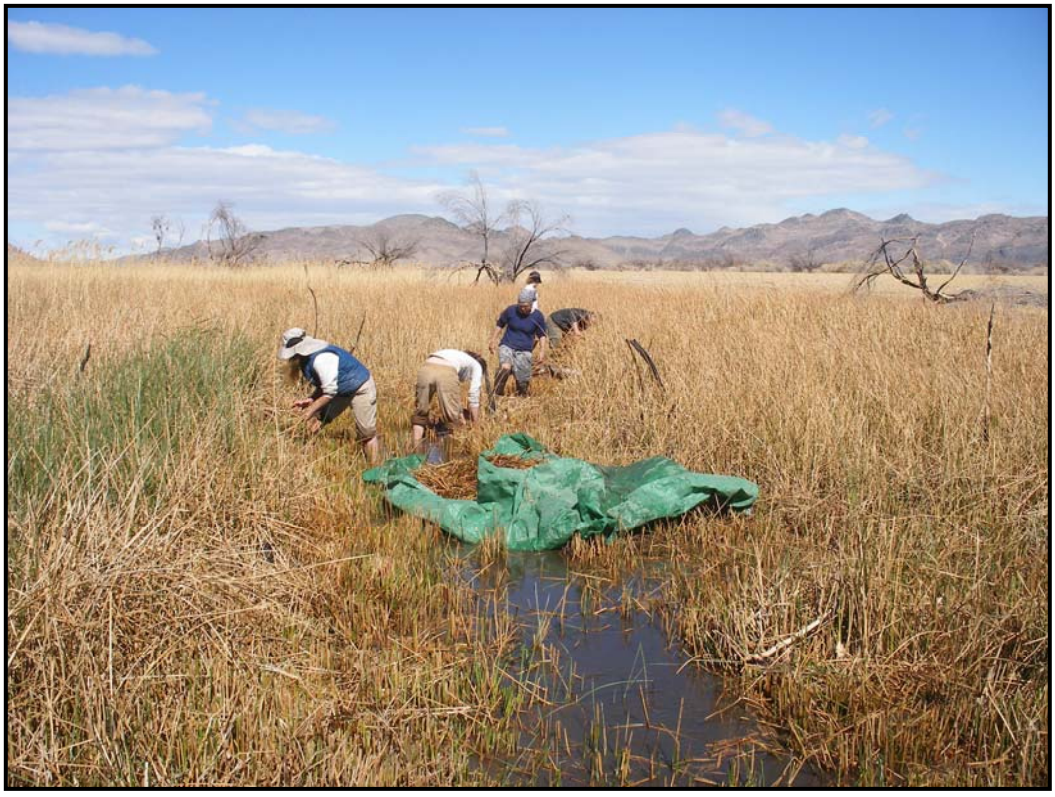


A power line, damaged by the Ash Fire was removed during the final year of the burned area rehabilitation.

INVASIVE SPECIES CONTROL



Nevada Conservation Corps research associate, Ed Kluender, performs spot weed treatments in a recent native planting site.



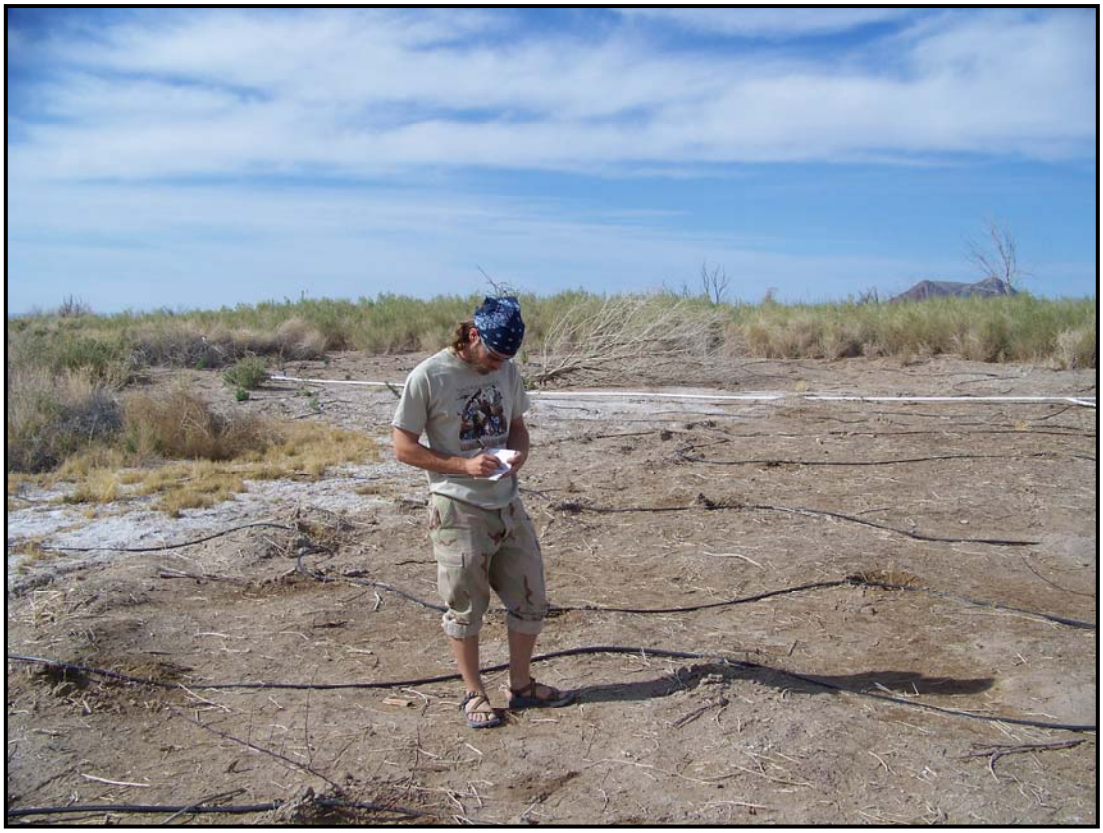
A restoration crew from the Nevada Conservation Corps removes invasive cattail and phragmites from one of the spring outflow channels in the Ash Fire Burned Area.

NATIVE PLANTINGS

Ted Turluck, Research Associate with the Nevada Conservation Corps, installs drip irrigation for Phase III plantings within the Ash Fire burned area.

Nevada Conservation Corps Research Associate, Matt Burks, performs dripline maintenance on one of the earliest native plantings in the burned area.

VEGETATION MONITORING



Ed Kluender, monitors the success of a recent planting within the Ash Burned Area.